

Optional Review Test 3 Pre-AP Chem. Isotopes & Electro Magnetic Spectrum

The Atom:

Three subatomic particles, their role in mass, charge and location in the atom

Ex. Number of each particle in and atom of Nitrogen 15.

$$\text{Answer } p^+ = 8, n^0 = 7, e^- = 8$$

Relative size of an atom compared to its nucleus

Average atomic mass

An isotope is ...

What does the number mean?

Which one of Daltons 4 theories about the atom was proven to be incorrect after the idea of the isotope was officially recognized?

Who is credited with the idea of the isotope.

Calculating average atomic mass

Ex.

Element X has an atomic mass of 15.510 amu. It consists of the isotopes ^{14}X with isotope mass of 14.023 amu and ^{16}X with an isotope mass of 16.003 amu.

What are the percentages of the two isotopes in naturally occurring X?

$$\text{Answer } 24.9\% ^{14}\text{X}; 75.1\% ^{16}\text{X}^*$$

The Electromagnetic spectrum,

See.96 in text book.

Correctly order by largest wave length to smallest from memory

Each of the following symbol represent which measurements/ constants and what are their units

$$E=h\nu$$

$$c=\lambda\nu$$

What is light and what is the purpose of a spectroscope? What does a spectroscope do?